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ABSTRACT

This paper investigates patterns of distribution of formal secondary education among different social groups in the Ivory Coast. It reviews educational growth in less developed countries (LDC's) and the questions of unequal distribution of education (many LDC's have not reached universal primary enrollment). Reviewing research on educational opportunities in LDC's, it discusses the differences in educational achievement between students from socially advantaged backgrounds and low-socioeconomic backgrounds. In the Ivory Coast study based on 1979 data, the statistics show a relationship between parental educational background and student's educational achievement. Also in distribution in the two types of schools (lycee and college d'enseignement general) and official assignment to school by the Ministry of Education. A major problem in education in LDC's is population pressure. Despite a 1961 monogamy law, polygamy is still prevalent in the Ivory Coast, and fertility rates do not vary significantly by educational background as they do in more developed countries. While the demand for educational facilities increases because of population pressures, the representativity indexes of the socially disadvantaged cannot increase. The author concludes that socially privileged children have disproportionately high chances to attend secondary school and that a trend toward unequal schooling has been established. (MD)

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Monograph 83-4

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SOCIAL INEQUALITY AND ACCESS TO SCHOOLING IN THE THIRD WORLD: AN AFRICAN CASE

Monograph 83-4

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In its Universal Declaration of Human Rights of 1948 the United Nations stipulated that "Everyone has the right to Education" and that "Education shall be free, at least in the elementary and fundamental stages."[1] About two decades ago the UNESCO (United Nations Educational, Scientific and Cultural Organization) organized three major conferences to help Latin American, Asian and African countries to determine their educational needs and goals for the years to come.

The leaders of LDCs (less developed countries) have been under heavy pressure, not only from international agencies such as the UNESCO, but also from the citizens of those countries, to provide at least some formal education to the entire school-age population. At the conference on Educational Needs of Africa held in Addis Abbaba in 1961, African representatives, confident in the role education is supposed to play in development, were enthusiastic about the targets to be reached by 1980:

- universal free and compulsory primary schooling,
- secondary education for 30 percent of all children finishing primary school, and
- university places for 20 percent of secondary school completers.

In the case of the Ivory Coast, education was officially declared "the priority of priorities." As such, for many year formal education had tied up three ministries: the Ministry of Primary and Television Education, the Ministry of Education (Secondary and part of Higher Education), and the Ministry of Technical Education and Vocational Training. Many other ministries, such as that of Scientific Research, have been directly involved in formal education, for they provide scholarships to many students at home and abroad, especially for graduate studies. Only recently in 1983 have the Ministries of

Education, Primary and TV and Scientific Research have been merged. Other ministries, like those for Youth and Sports and for Cultural Affairs, are also involved to some extent in formal education. Actually, it is difficult to name any ministry which does not have some involvement in education.

Formal education has been, over the years, the social program which has received the largest share of the public budget. In 1965, public money allocated to education represented 5.4 percent of the GNP and 20 percent of public expenditure. The corresponding figures for 1973 are 7.4 percent and 31.7 percent[2] and 10.0 percent and 45.0 percent for 1981.[3]

Have the pressure and the commitment for more education translated into actual school attendance by all scholl-age youth in LDCs? The purpose of this paper is to investigate the patterns of the distribution of formal secondary education among the different social groups in the case of the Ivory Coast. Have these patterns changed since the early 1960s when the country became politically independent? To answer this this paper analyses the chances of youth from different social backgrounds to be admitted to two types of public academic secondary schools, the lycée and CEG (Collège d'Enseignement Général).

Educational Growth and the Question of Unequal Distribution

In industrial countries school attendance is compulsory until a specific age. Virtually no student reaches that legal age before the end of elementary school and the majority of students graduate from high school. Because of this, K-12 studies of equality of educational opportunity in MDSs (more developed countries) have focused on the determinants of academic achievement. Only at the college level have other aspects of inequality been considered.

In LDCs, school population has expanded drastically over the past two decades, with an aggregate increase of 102 percent, 205 percent, and 332 percent respectively for primary, secondary and tertiary education between 1960 and 1975 for example. In the case of the Ivory Coast, the aggregate increases in primary and secondary enrollments between 1960 and 1979 are, respectively, 345.9 percent and 1,637.0 percent. The increase is even more striking at the university level with 15,664.6 percent between 1960 and 1978.

Despite the large portions of national budgets allocated to formal education and the enrollment increases in absolute and relative numbers, many developing countries have not reached universal primary enrollment. As recently as the mid-1970s one-third of primary-school-age children of Third World countries were not enrolled.[3] The projected enrollment for 1985 for children between the ages of 6 and 11 is 68 percent, assuming the same expansion trends between 1960 and 1975.[4] Nearly all African countries had to admit that the 1980 target agreed upon at the Conference of Addis Abbaba was unrealistic, in part because of the population growth.

Given the insufficient number of school places, one can ask how the growth in number of school-age children actually enrolled has been reflected in the various social categories. Using the distribution of education as an indicator of social equality, one can ask to what extent LDCs have developed or adjusted their educational systems to implement a policy of equal educational opportunity for all social groups. The issue of differential access to education can be considered on grounds such as region, race, ethnic group, religion, sex, and social class. There are several concepts of equality of educational opportunity:

- equality of access to existing schools (criteria for admission)

- equal chances for progress through the system once enrolled (criteria of evaluation and selection)
- equality of resource allocation
- equality of results (private rate of return)
- equity aspect of educational finance (who pays versus who benefits).

When dealing with unequal access to different types of post-primary schools, it is customary to compare academic to vocational schools. Yet, in terms of the characteristics of the students and their chances for success in schooling and in socio-economic attainment, there may be as much difference among the academic institutions as between academic and vocational schools. This study will be concerned with two types of public academic secondary schools, the lycée and CEG. The lycée is usually a seven-year institution leading to the university. It includes the first and second cycles, lasting four and three years, respectively. It sometimes has the second cycle (the necessary condition to qualify for the status of a lycée) only, while the CEG provides courses for the first cycle only.

The Ivorian system of education, like that of other former colonies, was inherited from that of the former metropole, France. But unlike other African countries for example which have tried to change their educational system, the Ivorian leaders have followed closely the French system especially in the academic secondary and higher levels. The lycée and CEG are among the French academic secondary schools.

Created in the beginning of the nineteenth century by Napoleon, the lycée later became the French secondary school par excellence, de facto the school of the socially advantaged sectors of the population. In contrast, the CEG specialized in training low-level clerical workers. Although it has become an academic school with almost the same curriculum as the first cycle

of the lycée, a study in France showed that these two schools are still distinct in terms of the socio-economic origin of the students and the prospects of the academic career of those students. Lycée students have university-educated professional/managerial parents, while CEG students are more likely to have parents in the category of farmers, urban workers, and the less educated.[6]

Secondary education in Africa has progressed in the last 30-40 years from being terminal for the natives in the French colony to being basically only a necessary step toward higher education since the socio-political and educational changes whikch started in the mid-1940s. This is especially true of academic secondary school. In effect, the curriculum in the lycée for example is conceived, from the lower to the upper grades, as progressive and complementary. That is to say that the curriculum of each grade is conceived as a necessary complement of the curriculum of the preceding and following grades. This conception of the curriculum in secondary school includes university, which constitutes, in fact, the upper level of the same system.

The need and desire for higher levels of education can be explained by the fact that educational attainment is a necessary step to learn or to acquire credentials needed to qualify for certain positions. And it has been established that there is a linear and positive relation between the level of formal education and private rate of return. In the Third World, especially in Africa, the demand for more education can be explained in part by the lack of alternatives valued as much as is education. Also, the required academic credentials have been upgraded. That is to say, jobs which required only secondary education some years ago now require university-level education.

A Review of the Research on Educational Opportunity in Less Developed Countries

This section aims to present studies which analyse the characteristics of youth attending school in LDCs. In many countries, especially in the selective educational systems inherited from that of France, in addition to the non-compulsory attendance, there are rules for promotion, repetition, and dismissal of the students. Academic achievement is among the most important criteria for selection. For that reason, this section also presents studies dealing with the relationship between students' socio-economic background, school factors and their achievement. The second monograph will include the specific aspect of the determinants of attrition.

The literature reveals that in industrial, as well as in less developed, countries children from different social origins achieve differently. Findings from developed countries show that students from socially advantaged backgrounds tend to obtain higher school achievement that those of low socio-economic status.[7] Also, the latter are more likely to leave school once they reach the age for non-compulsory attendance.

As already suggested, in amny LDCs the lack of school facilities still makes it impossible for some school-age children to be admitted in the first grade. In less developed countries in general and African countries in particular are concerned, there have been studies, although few, dealing with achievement viewed as the major determinant of youths' chances to pursue their education after they have been admitted in the first grade. As in industrial countries, the conceptual as well as empirical studies addressing the issue of the determinants of achievement are not convergent. Some attribute more weight to home background factors, while others consider school influence the most important.

Some of the studies on the determinants of academic achievement in less developed countries have been reviewed by Simmons and Alexander.[8] After presenting the shortcomings of the production function model, they reviewed studies which show a strong weight of family background characteristics on student achievement. This is the case in a Tunisian study, and also in some of the less developed countries in the IEA study, such as Chile, India, Iran and Thailand.[9]

Results from Sri Lanka[10] show that children from "materially and culturally privileged" homes have higher achievement scores as compared to those who live in poorer environments.

In studies of the achievement of English and West Indian pupils, some authors reported that English pupils out-perform West Indians. Bagley[12] criticizes those studies, saying that the conclusions are biased mainly because of the authors' failure to control for factors such as social class measured in parental education and the language (Creole versus standard English) spoken at home. He argues that studies which take these factors into account lead to different conclusions.

A study in Jamaica and another in England[13] were conducted in order to find IQ levels of English and West Indian pupils. The distribution of the scores in both studies led to the conclusions that socio-economic conditions, rather than race—as reported by some—constitute the major determinants of pupils' performance. As a matter of fact, the performance of black pupils was not significantly different from that of white pupils. Instead, black and white pupils from an economically disadvantaged urban area obtained scores below the national average, while those from high SES backgrounds performed above the national average. Parents of West Indian pupils who are high achievers have the following characteristics, among others: they are from

islands other than Jamaica, they have a high level of educational attainment, they have financially stable homes, and they speak standard English in addition to Creole. In contrast, low achievers tend to come from homes where there is at least one Jamaican parent, a low level of formal education and only Creole is spoken. On the whole, socio-economic status constitutes the main determinant of test scores among British and West Indian pupils.

In the case of Africa Cooksey[13] reported for example that Camerounian students whose fathers are in the white-collar and commerical categories tend to obtain higher achievement scores in the secondary school entrance examination, as compared to those whose fathers are farmers and other manual workers. Yet, many students from non-elite origin do not take the examination while those whose parents are in the elite category represent the overall population and could be expected to have a normal distribution of achievement. Among the manual workers, only small farmers have children whose performance is similar to that of students from socially advantaged origins.

Criticizing the functionalist argument which contends that people in any society have unequal chances to succeed in a meritocratic system mainly because they receive unequal endowments, Prewitt[15] argues that, in the case of Kenya, although educational selection within a school is based upon merit, the different socio-economic origins which determine not only the home environment, but also the type of school students attend, lead to unequal chances for access to and continuance in the system. Among the few school-age youth enrolled, only the children of the well-to-do have supportive home conditions necessary for better achievement. School factors also influence academic achievement and chances to stay in school. For example, better equipped institutions with better qualified teachers tend to have high

achieving students. If students with adverse home conditions could attend these kinds of schools, they probably could do better. But those already favored by their socio-economic origins take greatest advantage of those schools. So, the initial unequal chances are exacerbated by differential access to schools with better resources. Somerset[16] contends that the chances for low-status pupils are hindered by their social conditions, even though they have the ability to succeed in the secondary school entrance examination. Only those who have a chance to attend high-cost schools are selected efficiently on merit.

Other studies have found that school factors have more influence than home characteristics on educational achievement, at least at certain levels. This is the case in Ryan's study of Iran, Carnoy's of Puerto Rico, and Carnoy's and Thias' on Tunisia. On the whole, the main conclusion to be drawn from these studies is that "although home background is important in primary and early secondary grades, its influence diminishes as the student progresses through the secondary cycle."[17]

In his comment on Simmons' and Alexander's paper,[18] Heyneman[19] considers that they overestimated the importance of students' background characteristics as determinants of their academic achievement. Heyneman attributed that overestimation to the authors' failure to review studies which reveal that home factors in LDCs have far less explanatory power than in industrial countries. By the same token, school factors in LDCs, argues Heyneman, have more weight than in MDCs. Kifer's analysis of 18 countries and three Indian studies[20] are among those cited by Heyneman as examples of LDC studies, which are different from the conclusions reached in industrial countries.

The re-analysis of IEA data also led Heyneman and Loxley[21] to the conclusion that, indeed, the school variables have more effects than those revealed in the first analysis. They show that there is a positive and linear relationship between the level of economic development of the countries in the studies and the importance of school characteristics in the prediction of students' academic achievement.

Concerning Africa, in a study of Uganda, Currie[22] did not reach decisive conclusions about a positive relation between fathers' socio-economic status and students' academic achievement. As reported by Heyneman, other African studies revealed that relationships between socio-economic status and student performance are not high or positive.

In his own study on Uganda, Heyneman's findings[23] appeared to be even more striking. The correlation between community or home background characteristics and achievement is clearly negative. The explanation provided for such results is that when school facilities are scarce, children selected by parents and communities are those who have shown signs of being potentially exceptional high achievers. But, in communities where the available school facilities enable more people to enroll and where, as a reult, the overall population is better represented, there is a normal distribution of achievement.

In a Zairian Case, Lanzas and Kinston[24] tried to find the determinants of achievement score in English. Their findings support other African studies, i.e., the effects of students' family characteristics on their performance is not important.

As a result of unequal enrollment in the first grade and/or unequal chances to survive the selection process, or because of other factors, several studies have found that social categories are unequally represented in educa-

tional systesm. For example, a historical analysis of the distribution of education in the Phillippines shows that the sexual imbalance in school enrollment has disappeared.[25] However, differences on the basis of socio-economic factors, such as parental education and occupation, have persisted.

Kazamias[26] analysed the characteristics of students attending the prestigious Turkish academic secondary school, the Lise (derived from the lycée). He found that children whose fathers reached a high level of formal education, who have white-collar occupations, and who are urban dwellers are more likely than others to attend the Lise.

Studies on equality of access to schooling in various African countries have revealed that different socio-economic groups are unequally represented in the educational systems. The socially privileged are overrepresented, while the disadvantaged are underrepresented.

However, there have been debates over the interpretation of the selectivity figures, not only in terms of the magnitude of the inequality at a given time, but also concerning the trends found or expected. Some have found a relative 'openness' of the systems and even predicted a more democratic trend. In contrast, others have shown in their analyses that educational selection in Africa follows social class lines.

Hurd and Johnson[27] explain that the Ghanaian pattern of secondary school selection reflects an increasingly closed system. Weis[28] compared the residential characteristics and parental occupations of the students in her 1974 sample to Foster's 1961 data and found not only that children of urban professionals and semi-professionals have better chances than those of rural and/or urban workers to attend secondary school, but that on the whole the gap seems to have increased. She therefore concluded that the pattern of selection indicates a trend toward a less open system of education. Van den

Berghe[29] reached a similar conclusion about the university level in Nigeria. Olson[30] shows that, despite the educational expansion that took place in Kenya between 1961 and 1968, access to selective secondary schools did not become more open to students of low socio-economic status.

Even countries with a socialist ideology have shown patterns of recruitment similar to those of the previous cases. In Tanzania, Mbilinyi[31] reported that educational opportunities are unevenly distributed in the country among "social classes" in favor of the "ruling class," which uses education as a means to transmit their "class membership" to their children. Samoff[32] also shows that with the initial advantage of the Kilimanjaro region the local elite has maintained their higher representation in the education system. Because they have the financial resources, they are in a position to override the quota system by sending their children to private institutions. Hence, the gap between the socially advantaged and the socially disadvantaged groups remains basically the same despite some progress in some areas.

Zolberg[33] found the Malian system (in a country with a socialist ideology as well) highly selective with extremely unequal representation of the different social groups in secondary school. For example, the selectivity index for managerial-clerical workers is 51.1, as compared to 0.4 for the category of farmers, fishermen and shepherds. In view of such a pattern of recruitment, she points out that the system of education is being used as a "mechanism for class formation."

In his study of secondary school students in Ghana, Foster[34] found unequal selectivity indices in favor of more socially privileged groups, such as professional and clerical workers and urban dwellers. In contrast, farmers, urban unskilled workers and rural residents were underrepresented. However, he perceived a more democratic system of education selection "in the

years to come."

The findings of Clignet and Foster[35] about the Ivory Coast are similar to those for Ghana except that the educational system in the Ivory Coast was not as old. The difference in the stage of the socio-economic and educational development of the two countries and the similarity of the patterns of recruitment suggest that educational expansion is not necessarily accompanied by a less open system. They prudently abstained from identifying trends before "studies over time" are done. Comparing just two occupations, subsistence farmers and salaried non-manual workers of 1963 and 1973, Charlick[36] contends that there have been no changes toward more or less open secondary school recruitment in the Ivory Coast. At the post-secondary level he compared 1955 data to 1974 and 1975 data and reported a declining representation of the salaried non-manual workers. He concluded that, on the whole, the data prevented him from finding any changes in the social characteristics of the "future elite."

The Ivorian Study

The analysis of the distribution of formal education in the Ivory Coast is based on data collected in 1979. To assess the patterns of representation of the different socio-economic categories in secondary school, the 1979 data set is used and, when possible, it is compared to the 1963 Clignet and Foster data.[37]

The 1979 data set consists of 5,493 students of two types of public academic secondary schools: the lycée, long stream, and (CEG), short stream. Both data sets are adjusted for comparative purposes. For example, in both data sets the father's educational attainment is measured in terms of level of education reached, for example, no schooling or some primary. But

the available information about the general population in 1963 is measured in terms of literacy (illiterate versus literate). So illiterate is used in place of no schooling, while, in reality, literacy is not necessarily acquired through schooling and people who attend school for a few years may fall back into illiteracy. However, at least the proportion of literate without schooling is assumed to be negligible. The proportion in the 1975 census, for example, is only 1.1 percent.

The method of analysis consists of cross-tabulations and selectivity indices. Selectivity indices are used in order to compare the distribution of students with specific parental characteristics to the distribution of the adult population with characteristics similar to those of the students' parents. To have meaningful selectivity indices, the adult population must have the age range of the population segment likely to be parents of the students. This is why it is important to mention the limitations of the general population data used in this paper. For example, in addition to the measurement of education and literacy mentioned above, the 1975 census data available for educational attainment, occupation, and area of residence include the population six years of age and older. It is clear that it does not make sense to consider six-year-old persons as likely to be parents, or even twenty-year-olds, as probable parents of secondary school students. Otherwise selectivity indices may not constitute a good method when comparing different countries, but they are appropriate when the same country is analyzed, whether the data are cross-sectional or longitudinal. They can provide a good picture of the patterns of the distribution of education among the different social categories.

Representation of Ivorian Social Categories in Academic Secondary Schools

When Western powers introduced formal education in their colonies in

Africa, that education was rejected altogether by Africans mainly because it was perceived as an integral part of colonial domination. But the Africans who first received some kind of formal education, often against their wills and the wills of their parents, became the leaders in the new struggles against colonial rule in the mid-1940s. They also became those who were eligible for the new, relatively high positions made available by the administration. They acquired the highest and most economically rewarding political and bureaucratic positions in the new nations after political independence in the late 1950s and early 1960s.

From an instrument of colonial exploitation, formal education became the most important means to ensure socio-economic success. It has been a key factor in the process of the formation of new social classes in African countries. It has expanded rapidly over the past three decades. However, even at the primary level, it is not yet compulsory or universal. Access to secondary school is still competitive for the few who survive the selection process in primary school. Until about five years ago, admission to the university was automatic for baccalaureate (secondary school diploma) holders.

As a result of low enrollment rates in the past, the Ivorian population is characterized by a high level of illiteracy, at least if literacy is defined in terms of being able to read and write French. Table 1 shows that the illiteracy rate among the male population aged fifteen years and above has dropped from 92.0 percent in 1963; however, it was still 79.6 percent in 1975, as shown in Table 2. When males and females are considered together, in 1963 as well as in 1979, the proportion of students with illiterate parents is higher than that of students with literate parents. But when broken down by sex it appears that the proportion of students with illiterate parents is higher among males. This is an indication that female students tend to be

TABLE 1

DISTRIBUTION OF IVORIAN MALE POPULATION
BY LEVEL OF LITERACY AND SELECTIVITY
INDICES OF SAMPLED STUDENTS

	Proportions of Ivorian Males		Males		Females		Total	
LITERACY	1963*	1975**	1963	1975	1963	1979	1963	1979
Illiterate	92.0	79.6	0.8	0.7	0.3	0.4	0.7	0.6
Literate	8.0	20.4	3.2	2.9	8.6	5.0	3.8	3.6
Total	100.0	100.0	---	---	---	---	---	---

NOTE: *République de Côte d'Ivoire, Côte d'Ivoire 1965: Population, Male population 15 and over.

**République de Côte d'Ivoire, Ministère de l'Economie et des Finances, Recensement Général de la Population, 1975, Abidjan, 1977.

still drawn from more advantaged homes as shown by their residential characteristics and the educational attainment of their parents.

For males as well as for females, the selectivity indices are all above 1 for the category of fathers who can at least read and write French, although the indices decreased somewhat between 1963 and 1979. In constrast, the indices for the illiterate population have remained essentially the same, with 0.8 and 0.7 for males in 1963 and 1979 and 0.3 and 0.4 for females. These

TABLE 2

SELECTIVITY INDICES OF SAMPLED STUDENTS
BY TYPE OF SCHOOL: 1963 AND 1979

	LONG STREAM		SHORT STREAM	
LITERACY	Long Academic 1963	Lycée 1979	Short Academic 1963	CEG 1979
Illiterate	0.7	0.5	0.8	0.6
Literate	4.1	5.5	3.2	4.1

trends are roughly the same when the distribution is done by type of school, as shown in Table 2. The trend for the literate group has increased, although not significantly.

These figures suggest that the system of admission and the criteria for evaluation and selection are more favorable to the socially privileged. For example, admission to secondary school is based on pupils' achievement scores on the secondary school entrance examination. But pupils' age is another important criterion. The achievement score threshold is set lower for younger pupils. So, other things being equal, younger pupils are given better chances to pursue their education. Among the students who pass, younger students are more likely to be assigned to more prestigious institutions, such as the lycées, which lead to a university, while older ones are assigned to short stream schools, such as CEG. But students' age is not randomly distributed with respect to other characteristics. Well-to-do parents who live in neighborhoods provided with enough schools tend to send their children to school at the age of six. But the lack of school facilities in poor urban neighborhoods and rural areas makes it difficult to enroll six-year-old children. When school places are limited, older children are often given priority, and the process may go on as long as demand exceeds the available facilities.

Another important factor which determines chances for educational success is the language of instruction. Unlike the Belgian Congo, for example, where Africans in "native" schools were taught in their native languages, in French colonies French was the sole language of instruction. After political independence, Ivorian leaders chose to keep French as the official language and the language of instruction, from kindergarten to university. In westernized families where both parents are formally educated,

French tends to be the main and sometimes the only language of communication at home. But in uneducated homes in urban areas and in rural communities, usually children do not learn French until they go to school. Even when they are already enrolled, the classrooms and the school compound may be the main or the sole environment where they have a chance to practice their French. Thus, they tend to have poorer academic progress as compared to children with similar ability but from westernized homes.

The strength of the relationship between parental educational attainment and children's chances to attend secondary school is partly reduced when a dichotomous variable such as literacy is used. The chances for the sons and daughters of parents who can just read and write French and/or who graduated from primary school alone are expected to be low when compared to those with university graduate parents.

Table 3 more clearly shows the differential chances for parents with different levels of education to have their children in secondary school. The

TABLE 3

DISTRIBUTION OF IVORIAN MALE POPULATION BY LEVEL OF EDUCATIONAL ATTAINMENT AND SELECTIVITY INDICES OF SAMPLED STUDENTS: 1979

LEVEL OF EDUCATION	Proportions of Ivorian Males*	Males	Females	Total
No Formal Education	69.9	0.9	0.5	0.7
Primary Education	20.8	1.1	1.2	1.1
Secondary Education	7.8	1.2	2.9	1.8
University Education	0.8	3.5	17.6	7.5
Total	100.0	--	--	--

*Includes males 6 years and above

Source: République de Côte d'Ivoire, Ministère de l'Economie et des Finances, ibid.

indices also vary among those who have formal education; the lowest figures apply to the category with primary education and the highest are for the university educated group. The gap is bigger when females are compared to males. For example, a son with a university-educated father is 3.5 times as likely as one whose father has no formal education to attend an academic secondary school. The corresponding ratio for female offspring is 35.2:1. This more strongly shows the argument that female enrollment is much more determined by ascriptive factors. While there are still few female students from uneducated homes, virtually all daughters with at least one university-educated parent, often the father, are likely to be enrolled in secondary school.

The distribution of the student population by the two types of school also reveals the difference in the gap between the educational categories. While a university-educated father has 4.7 times the chance than a non-formally educated father to have his child in a CEG, the ratio reaches 22:1 in the case of a lycée. The distribution of lycée and CEG students shown in Table 2 suggests that the recruitment of students in the Ivorian case tends to follow social class lines.

It is worth mentioning that students have a clear perception of the privileged status of the lycée. When the 1979-sampled students were asked to choose between the lycée and the CEG, 96.5 percent of those attending a lycée and 79.2 percent of those in CEG chose the lycée over the CEG. The socially privileged parents not only tend to enroll all their children, but those children are more likely to attend the most valued institutions.

It has been shown that the selectivity indices for the socially disadvantaged groups have remained below one. What are other possible factors explaining the differential representation of the social groups in the educational system?

School attendance is not compulsory, even at the primary school level. If there are students in school at all and the student population keeps growing, it means that private demand is high. There are several specific indications that private demand exceeds the available facilities. For example, the actual class sizes are much larger than the size recommended by the Ministry of Education. In 1977-1978 the official class size for the first grade of secondary school was set at forty-four students,[38] but the actual average class size was 54.3. Just one year later, it increased to 57.8.[39] In fact, it is not rare to have classes with over sixty students, as found in the 1979 survey.

Public secondary school students are supposed to be officially assigned by a Ministry of Education agency. But in 1978-1979, 22.1 percent of students in the first grade of all public academic secondary schools were not officially assigned. In the 1979 sample, 29.8 percent of the students reported that they were not assigned by the government. These figures indicate that parents are so eager to enroll their children that they tend to bypass the law, if necessary, to find places for their children. But not all parents can use unofficial channels to enroll their children.

As can be seen in Table 4, the higher the father's educational attainment, the higher the likelihood of attending school without being officially assigned. While up to 55.9 percent of students with university-educated fathers were not officially assigned to the school they were attending, the figures for secondary, primary, and non-formally educated categories are, respectively, 46.5 percent, 30.8 percent, and 21.4 percent. As revealed by a -0.40 Gamma coefficient,[40] there is a strong negative correlation between father's educational attainment and the need to rely on government decisions to attend a public secondary school. The uneducated parents, the majority of

whom are poor, unskilled, urban workers or farmers, have limited opportunities in the public system. Furthermore, their socio-economic situation may limit their ability to pay for private institutions. The direct cost, even in public schools (the costs of a uniform, school supplies, transportation and food), and also the opportunity cost, may be too high. The tuition fees required in private religious as well as non-confessional schools make it practically impossible for poor parents to send their children to school when facilities in the public institutions are not available. Parents who have the financial means to support the private direct and the opportunity costs also want to minimize the monetary load of the education of their children. In addition, public schools in general, and especially the lycées, are considered as ensuring better education and chances for a more successful academic career. Therefore, those who have the power and authority, officially or unofficially, acquire places for their offspring in the public institutions, as the figures in Table 4 show.

TABLE 4

PROPORTIONS OF STUDENTS ASSIGNED AND NOT ASSIGNED BY THE GOVERNMENT BY FATHER'S EDUCATION

Type of Assignment	FATHER'S EDUCATION			
	No Formal	Primary	Secondary	University
Assigned by Government	78.6	69.2	53.5	44.1
Not Assigned by Government	21.4	30.8	46.5	55.9
Total	100.0	100.0	100.0	100.0
N	(2,909)	(1,317)	(604)	(449)

Chi-Square Statistics: 327.6, 0.0; Gamma = -0.40

TABLE 6

NUMBER OF SIBLINGS OF SAMPLED STUDENTS
BY FATHER'S LEVEL OF EDUCATION

Number of Siblings	FATHER'S EDUCATION			
	No Formal	Primary	Secondary	University
0-4	43.0 (1243)	33.5 (439)	25.8 (158)	45.9 (207)
5-9	41.7 (1205)	43.8 (575)	48.0 (294)	38.6 (174)
10 or More	15.3 (441)	22.7 (298)	26.1 (160)	15.5 (70)
Total	100.0 (2889)	100.0 (1312)	100.0 (612)	100.0 (451)

Chi-Square Statistics: 112.8, 0.0; Gamma = 0.13

One of the big problems faced by most developing countries concerning availability of school facilities is population pressure. The annual population growth in most African countries today, including the Ivory Coast, is three percent or higher. The age pyramid is typical of a population in rapid expansion, broad at the base and progressively thin toward the top. In 1963 the proportion of the Ivorian population under the age of twenty was 52.4 percent,[41] and in 1975 it was 54.1 percent.[42] Higher fertility rates are among the factors which explain that population expansion.

On several grounds the African educated elite have adopted western values and lifestyles, for example, life in urban areas, and acquisition of goods such as cars, telephones and television sets. But in many other ways, they are still at the junction of two civilizations, the Western and the African, and they clearly show their preference for African values and approaches when it comes to matrimony and fertility. For example, despite

the 1961 law which established monogamy, polygamy is still prevalent.

Among the students interviewed in 1979, 44.9 percent stated that their fathers are polygamous. And the average number of children on the basis of the number of siblings reported by the students is 6.7.[43] Unlike that which one might expect from more developed countries, for example, Table 5 shows that the high fertility rate does not significanlty vary according to father's educational attainment. In fact the distribution of the number of children for parents with a university education is very similar to that of the category with no formal education. What the figures in Table 5 reveal is that members of the African educated elite, like the other social groups, do not just reproduce themselves, they also multiply themselves. Hence, like others, their demand for educational facilities increases. But unlike others, they generally have the financial means and the influence to place their children —which explains in part why despite the increase in school facilities, the representativity indices for the socially disadvantaged cannot increase.

Conclusion

Data from the Ivory Coast of the early 1960s and late 1970s lead to the conclusion that children from the socially privileged category of western-educated and urbanized families have disproportionately high chances to attend secondary school. In constrast, the selectivity indices of less educated and rural families show limited chances for their children to attend secondary school. These findings are concordant with results from other African countries reported earlier.

The Ivorian data do not provide a basis for conclusions in terms of change of drastic direction toward a more closed or open system of education. However, since the unequal pattern of recruitment seems to have remained the same over almost twenty years, it can be said that a trend of unequal access

to schooling has been established. This unequal educational opportunity reflects the division of the Ivorian society into more and more distinct "social classes" as measured by father's level of educational attainment in this study. These "social classes" have unequal means of using the existing educational facilities. Given the role of education in occupational and status attainment, the high status sectors of the society keep transmitting their status to their children. The pattern of reproduction of the elite and the scarcity of school places make it difficult to foresee any signs that the pattern of recruitment is likely to become more open in the coming years. And even if the facilities become adequate to absorb children from all social classes, the strategies of selection may change. This trend can already be perceived though the socio-economic origin of lycée and CEG students.

Further studies and richer data are needed for stronger conclusions concerning the trend of social stratification and educational selection in the Ivory Coast. Results from other African countries have led the authors to conclude that the structure has become more rigid, while others consider that educational systems are still open. More studies from other African countries will help cast light on this crucial issue of unequal educational opportunity.

NOTES

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[4]Kye-Woo Lee, "Equity and Alternative Educational Method: A Korean Case Study," Comparative Education Review 25, No. 1 (Febuary 1981), p. 45.

[5]World Bank, Education, p. 23.

[6]A. Sauvy and A. Girard, "Les Diverses Classes Sociales Devant l'Enseignement: Mise au Point Generale des Résultats," Population No 2 (March-April 1965): 205-232.

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[17]Simmons and Alexander, "The Determinants of Achievement."

[18] Ibid.

[19]S. P. Heyneman, "Differences Between Developed and Developing Countries: Comment on Simmons' and Alexander's 'Determinants of School Achievement'," Economic Development and Cultural Change 28, No. 2 (January 1980): 403-6.

[20]E. Kifer, "A Cross-cultural Study of the Impact of Home Environment Variables on Academic Achievement and Affective Traits," and J. W. Bulcock et al. "Reading Competency as a Predictor of Scholastic Performance: Comparisons between Industrialized and Non-Industrialized Nations"; and S. Shuluka, "Achievement of Indian Children in Mother Tongue (Hindi) and Science"; and J. W. Bulcock et al. A Language Resource Model of Science Achievement: Comparisons Between 14-Year-Olds in England and India, quoted S. P. Heyneman, ibid.

[21]S. P. Heyneman and W. A. Loxley, "Influences on Academic Achievement Across High and Low Income Countries: A re-analysis of IEA Data," Sociology of Education 55, No. 1 (January 1982): 13-21 and "The Effect of Primary-School Quality on Academic Achievement Across Twenty-Nine High and Low Income Countries," American Journal of Sociology 88, No. 6 (May 1983): 1162-94. If these re-analyses are right, then earlier findings in LDCs involved in the IEA study, including those reported by simmons and Alexander, are no longer valid.

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[37]R. Clignet and Foster. The Fortunate Few.

[38]Ministère de l'Education Nationale Direction de la Planification et des Investissements, 1979.

[39]Ibid.

[40]Gamma is a coefficient which measures strength of association between two variables. Its value ranges from -1.00 perfect inverse relation to +1.00 for perfect direct relation. A value of 0.00 indicates a total absence of relation.

[41]République de Côte d'Ivoire, Population 1965.

[42]République de Côte d'Ivoire, Ministère de l'Economie et des Finances, Recensement Général.

[43]This is lower than the actual figure because students who have ten siblings or more are combined in one category and they represent 18.6 percent of the total distribution.